



Official
Newsletter
of the
Fort Vancouver
Trades Guild

THE forge & plane

VOLUME VI, NUMBER 2

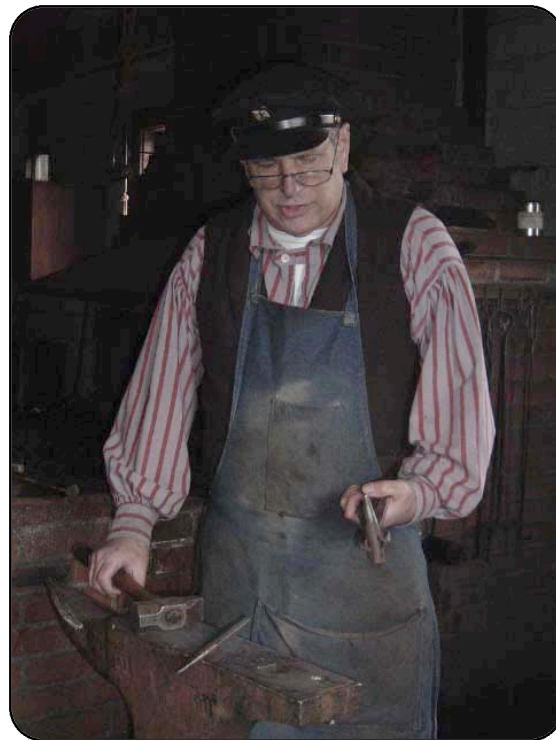
SPRING 2008

F&P Interview A Visit with Bob Race

BOB RACE graciously hosted guild members Jac Arnal and Susan Gawecki on a tour of his work and his shop in mid-April. In addition to being a master blacksmith himself, Bob collects iron work by other blacksmiths. His collection includes many items that reflect his ties to the community of blacksmiths and to the NWBA. (Several pieces were acquired at NWBA auctions, which should encourage all of us to participate.) A mug, or tankard, of impressive size was fashioned by past guild member Paul Hinds. The tankard, made of 4" x 1/4" steel, is about 12" high. Lifting it empty is a feat in itself; lifting it full of kool-aid would require nothing short of a block and tackle.

After Bob showed us around his house — it was full of iron and books on iron — we visited the shop. The shop is as meticulous as Bob's work: it is orderly and well organized, tools are treated with respect, and a clear fiberglass roof provides excellent lighting. One of his most unusual tools is a vise made by Ponderosa Forge, of Sisters, Oregon, which has no center screw but works with wedges. Another noteworthy tool, one that any blacksmith would truly covet, is a Bridgeport Mill.

One of Bob's particularly impressive pieces is a fire fork, modeled on one found in



Gawecki

Founding Guild Member Bob Race

Professional Smithing by Streeter. Another is a footed meat fork. (Photos of some of Bob's work can be seen in the Gallery on page 5.) Bob is also a skilled gunsmith, as precise, demanding, and careful about that as he is about everything that he does.

Bob's avid reading makes him an informed and excellent historical interpreter of the Hudson's Bay Company for park visitors as well as a very valuable resource person for those of us who look to him as a mentor. ♦



Champoeg volunteers (L to R) Harry Newton, Gary Lewis, Garron Guest, Bob Connor, Susan Gawecki, and David Stearns



Rob Lewis (left, in hat) supervises visitors learning to tire a wheel at Champoeg Founders Day

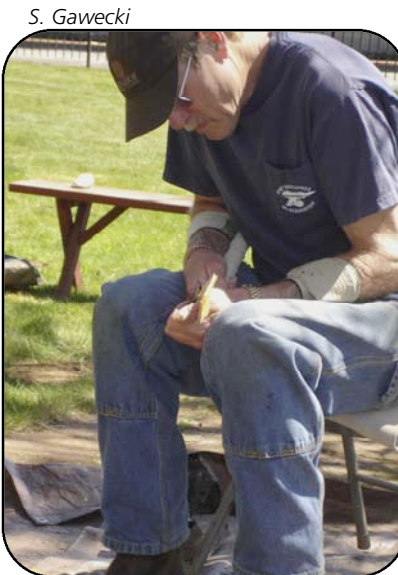
Founders Day at Champoeg

ON THE FIRST WEEKEND in May, the guild once again staged on-site blacksmithing to support Champoeg State Park's annual Founders Day celebration. Two forges were situated across from the plowing competition sponsored by the Oregon Draft Horse Breeders Association. Master woodworker and

guild member Rob Lewis set up camp nearby and tired a wheel to add to the show. Many thanks to Gary Lewis for working with Kim Martin to coordinate efforts, and thanks to those who participated: Gary Lewis, David Stearns, Garron Guest, Bob Conner, Rob Lewis, Susan Gawecki, and Harry Newton. ♦

Flint Knapping Workshop

APRIL 12, THE FIRST real spring day of the season, found guild members Ike Bay, Jac Arnal, and Susan Gawecki in the backyard of fellow guild member Dennis Torresdal learning to knap stone. Dennis has been knapping flint for years and has taught many classes on the subject. Flint knapping, or making stone tools, is a prehistoric art that requires minimum tools and maximum skills. Tools made of antler or copper are used, either in direct percussion or in pressure flaking, to obtain an edge. In addition to technical aspects of flint knapping, Dennis covered ethics involved,



Dennis Torresdal knapping flint

including appropriate tool use in public, resource use (our raw material), public flint knapping demonstrations and interpretation, signing replicas, and proper disposition of debitage.

Dennis traces his interest in flint knapping to childhood, growing up on farms that had arrowheads in the fields. His first real instruction was in the mid 1970s, in summer classes and archeology field sessions held in the Malheur National Wildlife Refuge. He worked on his own for about a decade, then, after two weeklong immersion courses, began to teach others about eight years ago: "Just as in blacksmithing, you can see it done, and it looks easy . . . but only by your own hands and eyes can you develop the know-how." ♦



Left: Anvil before repair
Right: Anvil after repair
Center: Preheating the surface



It's a bird? it's a plane? No, wait! It's Anvil Man!

GUILD MEMBER Harry Newton has repaired yet another anvil, this time for guild president Gary Lewis. *F&P* joined Harry and Gary to watch and learn. Gary recently purchased an 89-pound Peter Wright anvil for use at off-sites. Although the anvil was in pretty sound shape for its age, the edges were badly worn. Harry welded up the edges with Eureka 72 rod, and made repairs to the point of the horn and defects in the body of the horn with welding rod 7018, since less stress is anticipated in these areas.

Harry pointed out that preheating is one of the most important steps in repairing an anvil. Preheating is not performed to warm the anvil, which is far too large a heat sink for that. The purpose of preheating is to drive water from the anvil's surface. Skipping the preheat step will allow water in the surface to turn into steam during welding and the result will be a weak, porous weld. It's a good idea to check the temperature of the preheated surface with a 200° F welding grease stick, to determine the correct temperature.

Thanks Harry, from all the anvils you've made more useful with repair and from all of us who use them! ♦

British Blacksmith Visits Old Haunts

JOHN AUTY, of Leighton Bromswold, U.K. stopped by the fort to visit old friends and make some new ones on May 19. John, an active volunteer and guild member in the mid 1990s, was on his way to Anacortes, where he summers on his 38-foot boat. Chatting with him was most enjoyable. He pointed out that our side draft forge is

built on a design similar to his own forge, in England. His house and shop in Leighton Bromswold are circa 1830. The house is now in good repair, and John is ready to tackle the shop. We were happy to be able to provide him with a drawing of a Peter Ross door pull, which he hopes to replicate for a church in Leighton Bromswold. We're hoping that he pays a return visit on his way home in the fall. ♦



S. Gawęcki

Ranger Bill DeBerry and garden volunteer wrestle the new rose arbor into place

New Rose Arbor Installed

TAKING ADVANTAGE OF an early April break in spring weather, Ranger Bill DeBerry and the garden volunteers installed a new arbor for the Fort garden roses. The arbor was a stretch to fabricate both for the shop and the smiths. Each arch was constructed from a 20-foot length of 1018 cold-rolled $\frac{3}{8}$ " steel bar, so the work was a little awkward, at best. One difficulty

was bending the arch without a jig to control the curve. For you kids who want to try this at home, here's how the project started.

First, an 8-foot length at the center of the bar was heated to bright orange simultaneously in the southeast and southwest forges, then allowed to "normalize." Making the arc with no jig, via the time-honored "clamp bend, reclamp, bend" technique, required repeated stops in the vise. The two arches were joined with cross members welded in the maintenance shop. Project participants included rangers Bill DeBerry and Doug Halsey and guild president Gary Lewis. ♦



Solid & Sound!

WE HAVE a new sill! Many thanks to Lauren Wright and Gary Porter of the maintenance department for their hard work. ♦

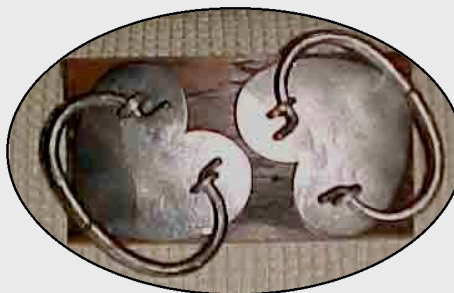
Carpenters Shop Gets New Head

MID-MAY marked a change in park personnel at the Carpenters Shop, with Ranger Marv Binegar taking over shop responsibilities from Ranger Bill DeBerry. Some of the first tasks Marv hopes to accomplish are general cleaning, constructing storage racks, and sorting lumber. Work is scheduled to start June 28 at 9:30 AM. Please give Marv a call or an email if you can lend a much-needed hand (360-816-6230, marv_binegar@nps.gov). ♦

Below: Candlestick by Bob Race

*Center: Trammel by Bob Race
with basket by Shirley Race*

*Overall length of assembled
trammel: about 35 inches*



*Above: Drawer pulls by
Bob Race*

gallery of guild work

The Forge & Plane proudly presents these photos of work by guild members Bob Race and Dennis Torresdal. We look forward to showcasing the work of other members and will be happy to capture your favorite piece digitally for publication.



*Left and below: Gates by Dennis
Torresdal for a bathroom in his home on
Sauvie Island. Dennis also created an
under-sink enclosure for the bathroom.*





June Guild Meeting Report

THE FORT VANCOUVER Trades Guild held the first of two yearly meetings June 8, 2008. New officers elected were President, Ted Anderson; Vice President, Larry Coffield; Secretary, Jeff Cawley; and Treasurer, Bill Evans. Departing treasurer Ike Bay passed a positive balance sheet on to his successor. Many thanks to everyone for their hard work and positive attitude over the past year.

Discussion at the general meeting focused on recruiting new members, continuing off-site demonstrations, drawing up an agenda for membership activities, and drafting an amendment to the bylaws to make the director of the Carpenters' Shop, currently Ranger Marv Binegar, an *ex officio* member of the board, since the guild represents both blacksmiths and carpenters. The membership will have a chance to vote on the proposed change at the fall general meeting. The guild is also continuing follow-up work on the trade axe workshop held last March.

Finally, the group recognized Bob Race, who will celebrate twenty years of volunteering at Fort Vancouver in October. A hearty slap on the back and a big thank you, Bob! ♦

Notes from the President

THANKS TO ALL WHO participated in this year's Champoeg Draft Horse and Founder's Day weekend. Once again, Kim Martin took good care of us, and we are talking about doing a breakfast next year. By the time you read this we should have voted in new guild officers, and I will no longer be president. Hopefully some of you stepped up to help out. The same few people have been doing most of the work the last few years and we need some new blood and new ideas! It doesn't take much time — most of the business is done by email. Two meetings a year seems to be the norm, and one is held during the Williamsburg weekend, which most members attend anyway. The Fort Vancouver Trades Guild does many things for the Fort as *continued on page 9*

Sympathy to the Guest Family

GUILD MEMBERS extend heartfelt sympathy to our friend and coworker Garron Guest on the recent unexpected loss of a beloved daughter. The Guest family is in our thoughts and our prayers. ♦

EVENTS FOR BLACKSMITHS

Blacksmiths' Day

Champoeg State Park
Saturday, July 19

<http://www.champoeg.org/>

Antique Powerland Great Oregon Steamup

July 26 – 27, August 2 – 3
503-393-2424 or www.antiquepowerland.com

Pioneer Farmstead Day

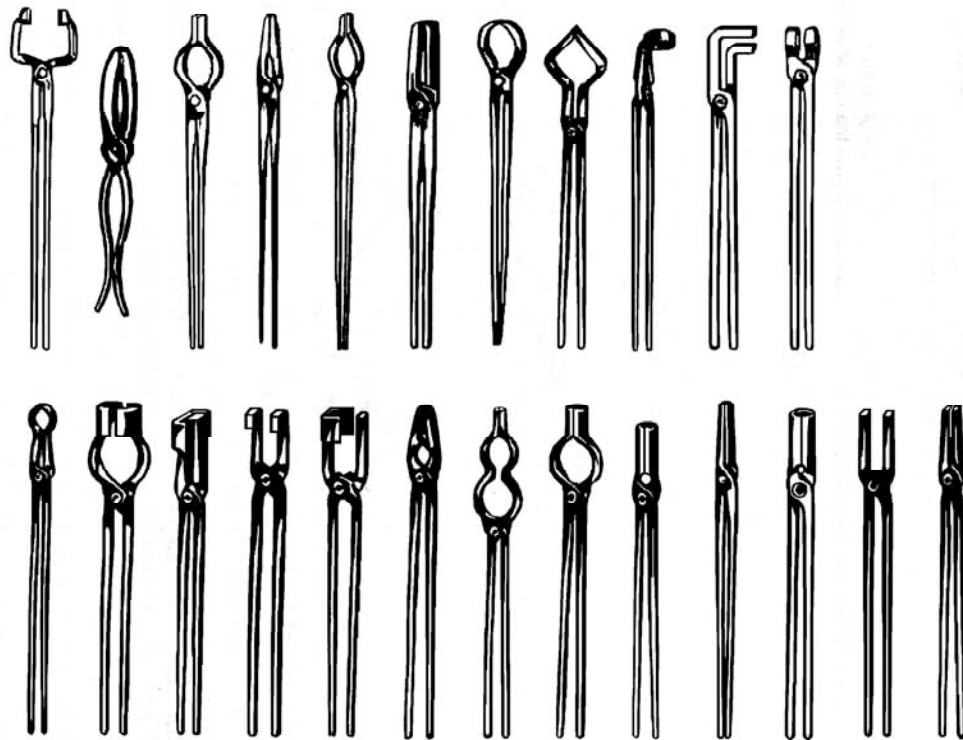
Champoeg State Park
Saturday, August 30, 1:00 PM – 4:00 PM
<http://www.champoeg.org/>

NWBA Fall Conference

Stevenson, Washington
September 26 – 28
www.blacksmith.org

F&P Quiz

Tongs come in many sizes and styles.
These tongs are standard patterns available
from the British firm, Vaughans.
Can you identify them? Answers on page 9.
(If you flunk the quiz,
you clean up the woodpile!!)



Reprinted, from Northeast Blacksmiths Association Fire and Iron, Spring 2008

More Shop Tips: Using Tools

David Stearns

OUR TOOLS FOR WORK on cold stock include cold chisels that are used to trim sheet metal, cut rivets, etc. Cold chisels are usually in the bench rack. They must never be used on hot work or they will lose their temper, and the heat treating process will have to be redone before they can again be serviceable. In my home shop, I generally try to make tools for cold work from octagon stock — or forge them that way — and tools for hot work from round or square stock, just to help sort them out more easily. I also keep them in separate racks. We also try to do that at the Fort shop, but it doesn't always work.

Hot Tools vs Cold Tools

If you're not sure whether a cutting tool is for hot work and or for cold work, check the cutting edge. The cold work chisels and cutoffs should have a more obtuse angle on the edges,

Cold work chisels and cutoffs should have a more obtuse angle on the edges, and the final approach angle should be much heftier. Hot tools should be much slimmer.

and the final approach angle should be much heftier. Hot tools should be much slimmer. Punches designed for cold work on sheet metal are not so easy to distinguish from other small punches, so if you need one and can make it yourself, I would strongly suggest keeping it in your locker and not on the bench, where it may become confused with a punch used for hot work.

Cold chisels must always be used on a cutting block or with a scrap under the piece when you are trimming flash or sheet metal. Never cut directly on the anvil face because you will inevitably cut through, which will

dull the cutting edge of the chisel or, more likely, cut into the anvil face.

When you are punching a hole hot, start with the work as hot as possible and quit while the work is still red hot. Every few hammer blows, twist or knock the punch out and reset it. Quench if the punch is beginning to show red. Work fast and hard. Before you start, make sure the punch is in good shape — straight, with the end flat and sharp. If the punch needs straightening, heat it and straighten it out, cool and file it flat across the end, then clean up the edges to get a sharp, clean edge that is true to the shape of the hole you are making.

Using Period Hacksaws and Files

Hacksaws of period design are made with a tang that goes through the straight handle instead of a pistol grip, like modern tools. The proper way to grip a period design hacksaw is to hold the handle with your dominant hand and hold the far end of the frame at the bow with your other hand. Use just enough pressure to cut, then back off on the return stroke. If you bear down excessively on the handle, as you might using a modern saw, the tang can shear off, which has happened more than once in our shop.

Files must *always* be used with a handle to prevent injuring your hand in case of a slip. The correct grip is usually off hand on the far end of the file, dominant hand on the handle, and again, just enough pressure to cut smoothly. Back off on the return stroke or you will quickly dull the teeth. Finally, *never* use any of the files in our shop for “hot rasping,” i.e., on hot work. This will immediately and definitively ruin the file for any further use. We have farrier rasps for this purpose, but there is really not much need for hot rasping if forging is done correctly. In addition, there is no historical evidence that I am aware of in our collection of artifacts that hot rasping was used. ♦

FORT CALENDAR

June

Volunteer Appreciation Event

Pearson Air Museum

Sunday, June 29, 1:00 PM – 3:00 PM

Historic Weapons Program

Small Arms and Cannon

Saturdays and Sundays

June 28 – September 1, 1:30 PM

Kids Dig: Fort Vancouver

Saturday, June 28, 11:00 AM & 2:00 PM

July

Movie Night on the Reserve

Thursday, July 3, 9:00 PM

Fourth of July Celebration

Friday, July 4, 8:00 AM – 11:00 PM

Historic Reserve Summer Programs

July 5 – September 1

Environmental Living Program

Immersion Experience: Frontier Life Before the
Civil War

Saturday, July 12 – Sunday, July 13

Kids Dig: McLoughlin House

Saturday, July 12, 12:00 PM & 2:00 PM

Cultural Demonstration

Feather Work, McLoughlin House

Saturday, July 12, 12:00 PM – 4:00 PM

Soldier's Bivouac

Saturday, July 19 and Sunday, July 20
9:00 AM – 5:00 PM

Vintage Baseball

1st Oregon Volunteers vs Vancouver Townies

Wooden bats, no gloves, 1860s rules

Saturday, July 19, 6:00 PM

For more information on any events

360-816-6230 or www.nps.gov/fova/home/htm

MERIDIAN FORGE

Class Schedule

2008-2009

Forge Welding in a Gas Forge

October 4, Instructor: Darryl Nelson (\$125)

Forging Animal Heads

October 24 – 26

Instructor: Darryl Nelson (\$350)

Tools for the Artist Blacksmith

November 8 – 10

Instructor: Mark Aspery (\$350)

Traditional Forged Leaves

November 14 – 16

Instructor: Mark Aspery (\$350)

Meridian Forge is located in southeast rural
Pierce County, 23 miles south of Puyallup, on
Highway 161, 5 miles south of Eatonville. Classes
are limited to eight. Students have individual
forging stations and access to all necessary tools.

MERIDIAN FORGE

37010 Meridian East

Eatonville, WA 98328

360-832-6280, 253-318-1842

firemtforge@hotmail.com

Answers to the Quiz

Top row, left to right:

Crucible Lift Out tongs

Die Casters pliers

Sand Casters tongs

Foundry Close Mouth tongs

Pot and Coke tongs

Pickling tongs

Single Bow tongs

Road Wedge tongs

Round Side Mouth tongs

Band Jaw tongs

Ferrier's tongs

Bottom row, left to right

Rivet tongs

Round Mouth tongs

Flat Mouth tongs

Side Mouth tongs

Square Mouth tongs

Universal tongs

Pick-up or Dandy tongs

Bolt tongs

Double Hollow Bit tongs

Diamond Square tongs

Hollow Bit tongs

Open Mouth tongs

Close Mouth tongs

Notes from the President

continued from page 6

well as for its membership: talk to an officer
and find out! My thanks to all who have
participated, and I look forward to serving
the guild in other ways. I will continue to
be the off-site coordinator. ♦ — Gary

Gary Lewis, Guild President

NPS Archeology Field School Lecture Series

Interpreting the Fur Trade in National Parks

Robert K. Sutton, Ph.D., Chief Historian NPS
Thursday, June 26

The Wild, Mild, West: Domesticating Communities and Households in the Inland Northwest

Mark Warner, Ph.D.
Thursday, July 10

Lumber Camps, Ranger Outposts, and the CCC

Rick McClure
Thursday, July 17

The Story of Old John's Skillet and His Bark-roofed House

Melissa Darby
Thursday, July 24

Lectures are free and open to the public.
All lectures take place at 6:00 PM at the Pearson
Air Museum, 1115 East 5th St., Vancouver

Fort Vancouver Trades Guild 2008 Officers and Board Members

OFFICERS

President: Ted Anderson

4505 NW Lincoln Avenue
Vancouver, WA 98663
360-696-2648
nilst1@mac.com

V. President: Larry Coffield

308 SE 151st Street
Vancouver, WA 98661
360-892-2988
larrycoffield@spiretech.com

Secretary: Jeff Cawley

3421 SW Kelley
Portland, OR 97239
503-224-0214
jeffcawley@comcast.net

Treasurer: Bill Evans

1750 SW Carey Road
Portland, OR 97219
pecosbillevans@hotmail.com

ELECTED BOARD MEMBERS

David Stearns

44110 Thomas Drive
Scio, OR 97374
503-394-4324
dstearns@smt-net.com

Dennis Torresdal

20327 NW Sauvie Island Road
Portland, OR 97231
t4den@msn.com

Rob Lewis

Oregon College of Art and Craft
Wood Studio
8245 SW Barnes Road
Portland, OR 97225
800-390-0632

OFF-SITE COORDINATOR

Gary Lewis
112 NE 108th Avenue
Portland, OR 97220
503-256-0338
artillerymonger@msn.com



Official
Newsletter
of the
Fort Vancouver
Trades Guild

THE
forge
&
plane

The Forge & Plane is the official
newsletter of the Fort Vancouver Trades
Guild. Please send your comments, submis-
sions, and suggestions to

Susan Gawecki, Editor
17706 NE Homestead Drive
Brush Prairie, WA 98606
360-666-3398

If you would like to be added to the elec-
tronic distribution list, please send an
email request to

msgawecki@comcast.net

Unfortunately, due to postage and printing
costs, distribution of printed copies is limit-
ed to guild members only.